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IED STAFF REPORT

The Current Situation and
Prospects for Polish Agriculture

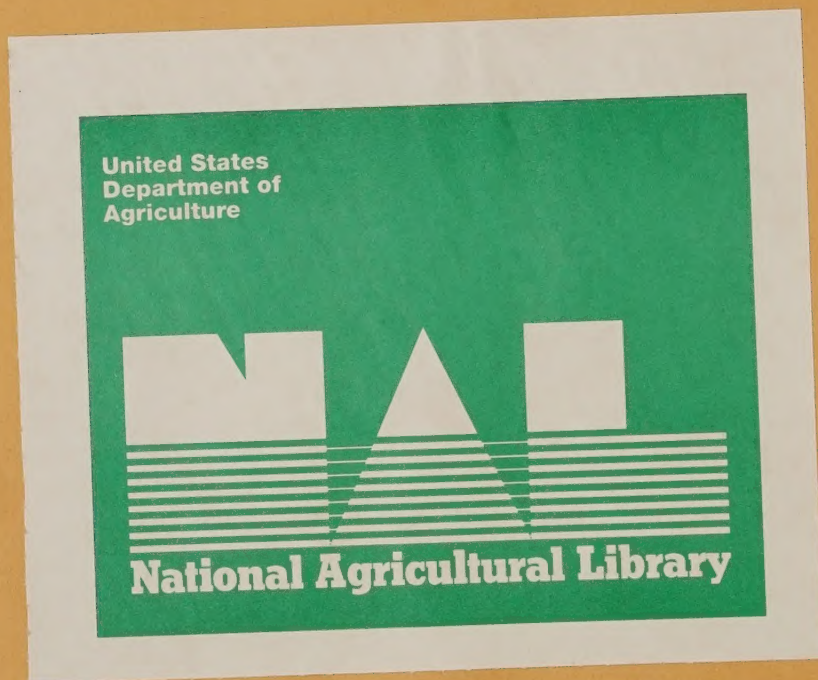
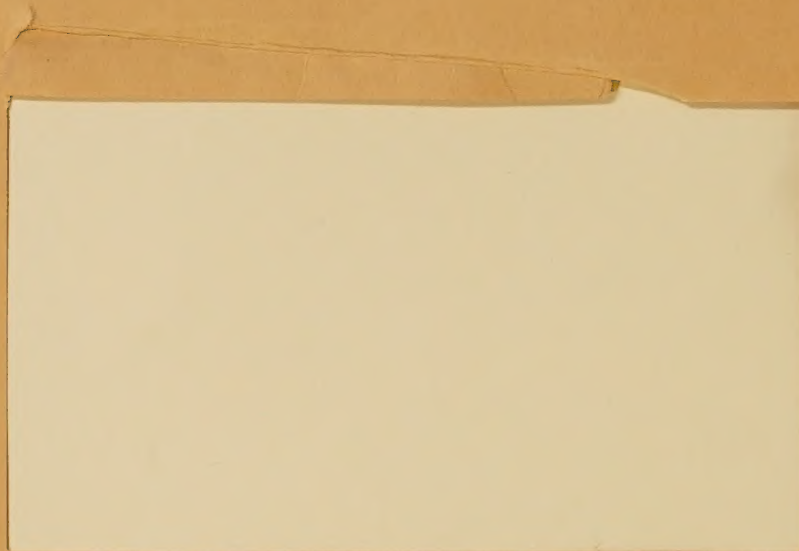
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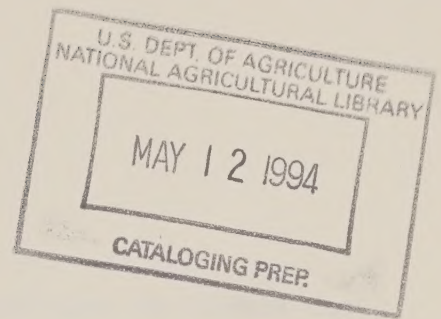
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June 1981

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The Current Situation and
Prospects for Polish Agriculture

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June 1981

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Summary

The Government of Poland is now looking to agriculture for the first signs of economic recovery. In fact, prospects for the current crop season indicate a better year than in 1980, despite declining material input availabilities. Grain production is estimated at 19.5-20.0 million tons compared with just 18.3 million last year. Potato production is expected to reach 40 million tons compared with last year's results of 26.4 million. Likewise, sugar beet production should recover sufficiently to allow per capita consumption of sugar to come very close to reattaining its 1979 level of 43 kg. Bulk fodder supplies are also expected to improve. Rapeseed production, accounting for almost all of Poland's oilseed production, will likely only marginally exceed last year's production of 566,000 tons.

Though prospects are almost uniformly pointing to a better crop season this year, the recovery will not be sufficient to eliminate food shortages plaguing the domestic market. Projected concentrated feed supplies for 1981/82 indicate a continued significant feed deficit, which will mean only a partial recuperation of meat production next year. Supplies of milk, butter, and vegetable oil are also expected to remain very tight. Implicit in this analysis is a moderate decline in feed imports by Poland in 1981/82.

In the concluding section of this paper, recent agricultural reform is examined. The implications for both the private sector and improved efficiency are good. However, the inability of the Polish economy to meet all the requirements implied by the reforms means that their full effect will not begin to be felt until 1982 or later.

The Current Crop Season

Following the 1980 autumn that was characterized by serious delays in sowing and shortfalls from planned acreage for grains and rapeseed, winter and spring weather has proved relatively favorable for agriculture. Winterkill of both grain, at less than 2 percent, and rapeseed, at less than 15 percent, was below average. 1/ Sowing of spring grain proceeded well ahead of last year's schedule, though it was slowed greatly by unusually cold weather during the last third of April. By April 26, 93 percent of the planned 3.6 million hectares of spring grain had been sown. 2/ By mid-May all spring grain sowing had been completed on an estimated area of 3.5 million hectares. 3/ Combined with a surviving winter grain area of 4.3 million hectares, total grain area for 1981 is now estimated at 7.8 million hectares, which compares somewhat unfavorably with the average of the last five years of 7.85 million hectares and remains well below the semi-official target of 8.2-8.3 million hectares. In light of current information on crop conditions and material input availability (see below) Poland's 1981 grain harvest is now estimated at 19.5-20.0 million tons, which noticeably exceeds the average output of the last two years of 17.8, but remains below the 1972-78 average of 20.9 million tons and well short of the 22 million tons hoped for.

For other crops, rapeseed area has declined 7 percent from last year to nearly 300,000 hectares. If the average yield for 1976-78 prevails, production will exceed 600,000 tons, compared with 566,000 last year. Even with this slightly higher production though, shortages of vegetable oil on the domestic market are nearly certain to continue into 1982.

1/ "Niemal w calym kraju rolnicy na polach" in Trybuna Ludu, April 1, 1981, p. 1.

2/ "Siewy zboz juz na finiszu" in Trybuna Ludu, April 26-27, 1981, p. 1.

3/ "Rolnicy koncza wiosenne prace polowe" in Trybuna Ludu, May 14, 1981, p. 1.

Potato production in Poland is threatened this year by a lack of quality seed potatoes. This situation assumes importance in light of the fact that potatoes are a major source of feed, particularly in the private sector, where they traditionally provide nearly 40 percent of feed for hogs. Potato planting this spring has been behind schedule and on a smaller area than planned. Though no figures are yet available, the Eastern Europe/USSR Branch estimates potato area at 2.23 million hectares, down 5 percent from the 1980 figure of 2.34. Due to the continued lack of necessary plant protection agents (PPA's), this year's potato crop is more threatened than usual by weed and bug infestation. Yields are also threatened by a shortage of fertilizer this year. Ideally, Poland would hope for a potato harvest of 50 million tons, of which 27-28 million tons would be used for feed. Attainment of this goal in 1981/82 is highly unlikely. For example, assuming that the average yield for the relatively good years of 1976-79 prevails, production will total just 42.5 million tons.

The prospects for sugar beets are quite good at this point. Planting was carried out fairly early, with two-thirds of the planned 500,000 hectares in the ground by April 26. 4/ We estimate that the planned sown area has been fulfilled. At this point it would appear that prospects are very good for Poland, a traditional net exporter of sugar, to reattain self-sufficiency in sugar in 1982. However, because of pent-up domestic demand and pressure to increase hard currency exports, it is not likely that sugar rationing will be eliminated in the foreseeable future. The major source of difficulty concerning sugar beet production this year is the extreme shortage of required plant protection agents.

4/ "Siewy zboz juz na finiszu" in Trybuna Ludu, April 26-27, 1981, p. 1.

Meadows and pastures, though suffering somewhat from a shortage of fertilizers, have benefited from this year's warmer spring and the first cutting of hay reportedly got underway by the end of May in the southwestern regions.

Material Input Availability

Along with the general slowdown in industrial production, supplies of fertilizer to agriculture in 1980/81 have been below plan as well as below the previous year's level. From July through April deliveries of fertilizer to agriculture were 9 percent behind the plan, meaning that fertilizer use has fallen at a time when the Government of Poland (GOP) desperately needs to increase yields. 5/ Rather than increasing from the level of 193 kg./ha. of agricultural land in 1979/80, fertilizer use in 1980/81 is likely to fall to something near 182 kg./ha. Furthermore, it has been reported that the excessive rain and flooding of last summer greatly depleted soil nutrients, particularly nitrogen. 6/ Shortages of raw materials (i.e. natural gas and phosphoric acid), increasingly frequent breakdowns of aging capital stock and a lack of spare parts for its repair are the primary reasons for the reduced production. Though total availability of fertilizer has declined, it is reported that a growth in supplies for private farmers will now be made possible by decreasing deliveries to the socialized sector. 7/

Supplies of PPA's have also been less than planned this year, with most serious shortages associated with grains and sugar beets. Planned imports of PPA's represent only 50 percent of what specialists consider as required 8/. Furthermore, no real hope of making up this gap from domestic production exists.

5/ "Rolnicy koncza wiosenne prace polowe" in Trybuna Ludu, May 14, 1981, p. 1.

6/ Attache Report PL-1020.

7/ "Wszystko dla wsi" in Trybuna Ludu, April 21, 1981, p. 3.

8/ Attache Report PL-1015.

The Institute of Plant Protection in Poznan has estimated that losses last year due to a shortage of PPA's amounted to 11 million tons for potatoes (actual harvest 26.4 million tons) and 4 million tons of grain (actual harvest 18.3 million tons). 9/ If most of these "lost" crops had been used for feed, then the decline in livestock numbers and livestock production that began last summer could largely have been avoided. Though these figures could well represent an overestimation of the impact, shortages of PPA's have certainly contributed greatly to disappointing Polish harvests lately. Continued inadequate supplies mean that Polish farmers will be hoping that the heavy precipitation of last summer is not repeated this year.

Another problem facing Polish agriculture this year was a shortage of quality seed for this spring's grain sowing campaign. Supplies of "certified" seed grain (i.e. those from state channels) were only about 80 percent of normal. Private farmers, who normally rely primarily on their own supply of grain for seed have been even more dependent on their own supplies in 1981. The effect of this has not come in lower area sown this spring, but rather in the possibility of depressed yields due to reliance on poorer quality seed with lower germinating power. 10/ An initial field report by the Ag. Counselor in Poland gave no indication of problems with spring grain emergence. 11/

The situation with agricultural machinery repairs and spare parts availability is also worse than last year. An estimated 10 to 15 percent of Poland's tractors are awaiting repair, the most serious parts shortages are for batteries, tires, oil filters and crankshafts.

9/ "Rolnictwo liczy na chemie" in Trybuna Ludu, May 5, 1981, p. 3.

10/ "Less and Poorer Quality Seed" in Glos Pracy, February 2, 1981, pp. 1-2, translated in JPRS 9295 CSO:9600.

11/ Attache Report PL-1021.

Poland's Feed-Livestock Economy: Continuing Feed Shortages

Poland's livestock sector continued to suffer from major feed shortages which resulted from last year's dismal harvest. June livestock numbers as well as calendar year production of meat and milk for 1978-81 are presented in Table 1. A drastic decline in all measures is estimated for the current year, with cattle numbers declining almost 15 and hog numbers nearly 17 percent from year earlier levels. In addition, meat production for the year is expected to fall 12-13 percent and milk production 6 percent.

Table 1--Polish Livestock Numbers 1/, Meat and Milk Production

	1,000 units or tons				
	1978	1979	1980	1981 est.	1981/1980
Hogs	21,717	21,224	21,326	17,800	83.5%
Cattle	13,115	13,036	12,649	10,800	85.4
Total livestock in standard units <u>2/</u>	20,546	20,327	20,044	17,675	88.2
Total meat production <u>3/</u>	3,142	3,257	3,094	2,700	87.3
Total milk production	17,122	16,959	16,748	15,800	94.3

1/ As of June.

2/ Compiled using following coefficients: cows 1.0, other cattle 0.6, hogs 0.3, sheep 0.1, horses 10, poultry 0.02.

3/ Carcass weight.

Cattle numbers are expected to show little improvement over the second half of 1981, while hog inventories are officially expected to undergo rebuilding and reach 18.7 million by December 1981. 12/

In recent years, three-fifths of milk production has been procured by the state. During the first quarter of the year, these procurements declined 20 percent from year earlier levels. Improved bulk fodder supplies beginning in May combined with a higher procurement price for milk announced April 1 should result in improved milk production, though the estimated decline of nearly

6 percent for the year as a whole could well prove optimistic. Though meat production is expected to fall 12-13 percent, all of this decline will come in commercial slaughter which is likely to decline 25 percent to 1.95 million tons. On farm slaughter, on the other hand, should increase 21 percent to 750,000 tons. 13/

Feed Shortages

The foremost cause of the significant decline in Poland's livestock sector is illustrated in Tables 2 and 3. Of particular importance is the table on grain-for-feed supplies. Because over 70 percent of its meat production consists of pork and poultry, variations in grain-for-feed supplies have a very strong impact in Poland. In Table 2 below, a level of 24 million tons of grain and potato for feed (in grain equivalent) was assumed as necessary for maintaining the livestock sector at its 1978 level.

Table 2--Polish Grain for Feed Supplies

	: Million tons			
	: 1978/79	: 1979/80	: 1980/81 prel.	: 1981/82 est.
Grain	:	:	:	:
Production	: 21.54	17.34	18.33	19.75
Imports	: 7.25	7.70	7.70	6.50
Use for feed	: 18.67	16.51	16.58	16.96
Potatoes for feed <u>1/</u>	: 6.25	6.85	2.75	5.00
Total grain and potatoes	: 24.92	23.35	19.33	21.96
potatoes for feed	:	:	:	:
Deficit of grain and <u>2/</u>	:	:	:	:
potatoes for feed	: n.a.	-0.65	-4.67	-2.04
Total grain imports needed <u>3/</u>	:	:	:	:
to eliminate grain deficit	: n.a.	8.34	12.56	8.60

n.a. = Not applicable.

1/ Potatoes converted to grain equivalent by a factor of 0.25.

2/ Based on the assumption that 24 million tons of grain are required to maintain or recapture the 1978 level of meat production.

3/ Allowing for small marginal uses of grain for food.

(Table 2 Continued)

	: Million tons			
	: 1978/79	: 1979/80	: 1980/81 prel.	: 1981/82 est.
Oilmeal ^{4/}	:	:	:	:
Production	: .314	.130	.238	.250
Imports	: 1.420	1.789	1.564	1.525
Total use for feed	: 1.734	1.919	1.802	1.775
Meal/Grain and Potatoes	: 7.0%	8.2%	9.3%	8.3%

^{4/} Including fishmeal and oilseed imports in meal equivalent.

Over the course of the 1970's, with emphasis being placed on higher per capita meat consumption, and with stagnating domestic grain production, Poland allowed itself to become greatly dependent on foreign sources of grain to maintain and expand its feed-livestock sector. Imports in excess of 6 million tons became common in the second half of the 1970's. A very poor grain harvest in 1979 forced Poland to draw down available stocks to minimize the impact on the livestock sector. Grain imports were pushed to a new record in 1979/80, as were imports of oilmeal. An excellent potato crop and improved rations made available by the higher oilmeal/grain ratio largely nullified the impact of the 1979 grain harvest (as illustrated by comparing mid-year livestock numbers for 1979 and 1980 in table 1).

However, in the second half of 1980 the situation began to deteriorate seriously. In addition to extensive flooding of pasture and general worsening of bulk fodder supply (Table 3), which accelerated a cut-back in cattle numbers and a decline in dairy production, Poland registered its second very poor grain harvest in a row, and most importantly, its worst potato crop in the post-WWII period. The resulting shortfall in grain and potato supplies (in grain equivalent) for feed was immense. Grain imports approaching 13

million tons would have been required to maintain livestock numbers and meat production. With the financial situation reaching an extremely acute stage, the GOP hoped to push grain imports to a new record of 8.5 million tons, which would, however, leave a grain equivalent deficit of roughly 4 million tons.

Table 3--Bulk Fodder Supplies

	Million tons		
	1978/79	1979/80	1980/81 prel.
Hay <u>1/</u>	19.49	19.15	16.29
Root Crops	9.65	10.67	8.04
Corn Silage	21.38	25.68	18.96
Straw	22.45	16.70	20.70
Sugar Beets <u>2/</u>	<u>15.71</u>	<u>14.15</u>	<u>10.14</u>
Unweighted Total	88.68	86.35	74.13

1/ Includes grass, alfalfa and serratella only.

2/ As a proxy for sugar beet pulp and tops.

Due to financing difficulties, including an unwillingness on the part of the banks to fully utilize CCC credit guarantees in the face of certain debt rescheduling, actual grain imports to Poland in 1980/81 will not top 7.7 million tons. The impact of the "missing" 800,000 tons of grain has recently been felt in Poland, with a steep reduction of contractual feed supply allotments to farmers. 14/ Reserve stocks of corn and barley are believed to be close to zero. The current shortage of feed grain, above that anticipated by officials, could mean a decline in meat production this year in excess of the 12-13 percent figure cited above.

Prospects for the 1981/82 Year

Poland appears to be facing a second year of deficit grain/potato supplies. Assuming a grain harvest of 19.75 million tons and a potato harvest of 42.5 million

14/ "Nowe zasady sprzedazy pasz tresciwych" in Trybuna Ludu, April 25, 1981, pp. 1-4 and Attache Report PL-1018.

tons, Poland will need grain imports exceeding 8.5 million tons for major improvement in livestock production. In arriving at the calculations for 1981/82 contained in table 2, it was further assumed that grain imports would total just 6.5 million tons and oilmeal imports slightly more than 1.5 million tons. The rationale here is that even with continued beneficial terms from suppliers, Poland will not be able to maintain grain imports at recent levels. What these assumptions imply is that in 1981/82 Poland will continue to face a grain/potato feed deficit of 2 million tons, or 8.5 percent. This will allow for a moderate recovery of meat production and, given expected improvements in bulk fodder supplies, milk production also. Given recent feeding efficiency in Poland, meat production could rebound to 2.9-3.0 million tons as a result of estimated grain/potato availability in 1981/82. This would remain well below the average production for 1978 and 1979 of 3.2 million tons. Recent policy decisions (see below), particularly the implementation of radically higher livestock procurement prices, are aimed at stemming the reduction in livestock numbers in the private sector. This could result in a more rapid recovery of Poland's livestock sector than indicated above.

The Domestic Food Supply: Situation and Prospects

The extreme shortages of food reported in Poland in recent months have resulted not simply from lower supplies of various commodities, but also from economic policy decisions, and have been exacerbated locally by a poor distribution network. It has been estimated that as a result of the major wage increases won by Solidarity last fall, disposable income will exceed the value of consumer goods and services in Poland in 1981 by 20 to 25 percent. This fact combined with the traditionally high income elasticity of meat and the maintenance

of unrealistically low retail meat prices (which cover only half the cost of production) has led to a situation of strong demand. Actual per capita consumption of meat is estimated to be falling from 72.5 kg. in 1980 to roughly 64 kg. in 1981, a fall of 12 percent. The meat rationing program introduced April 1 has proven less than effective at eliminating confusion at retail outlets. The GOP now plans to raise retail meat prices by the beginning of next year, something that Solidarity has already endorsed in principle. However, it remains unclear whether the Government and the Union have the same magnitude of price increases under consideration. Due to meat procurements below planned levels and the inability of financing desired levels of meat imports, it now appears possible that market supplies of meat in the third quarter of this year won't suffice to satisfy rationing requirements.

Other commodities are in shorter supply this year. Sugar production fell by about one-third as a result of the poor 1980 beet harvest. High imports from Cuba and Western Europe were not sufficient to close this gap, forcing the GOP in March to cut monthly rations of sugar for most of the population from 2 kg. to 1 kg. ^{15/} As a result, per capita consumption of sugar in 1981 is likely to be near 36-37 kg., compared with recent levels of 43 kg.

Because of declining milk procurement, butter production fell below year-earlier levels in November 1980, leading to the introduction of butter rationing this spring. Though supplies of vegetable oils have likely been maintained or actually increased somewhat, the surge in demand brought on by declining supplies of animal fats has led to market shortages here also.

^{15/} "Council of Ministers Adjusts Meat, Sugar Rationing" Warsaw Domestic Service 1800 GMT, February 19, 1981 translated in FBIS: Eastern Europe Daily Report, February 20, 1981, p. G17.

A similar situation exists between potatoes and grain. Potatoes remain a major component in the Polish diet, with per capita consumption in 1979 of 160 kg. During the 1980/81 July-June year, potato procurements by the state have been well less than half the previous year's level, implying a major drop in consumption. In turn, demand for grain products--bread, noodles, kasha and rice--has expanded beyond the ability of the Polish economy to supply, though production of these items has been as high as last year, if not higher.

Supplies of fruit and vegetables have also been poor as a result of production declines in 1980 of 13 and 20 percent respectively. 16/ Furthermore, the quality of both harvests was poor.

Food Market Prospects

In the coming year meat production is likely to experience a moderate recovery, with per capita consumption rebounding from 64 kg. to 68-70 kg. in 1982. Implicit here is no major decline in meat exports or increase in meat imports in the coming year. Milk production will also turn up, but the drop in cow numbers will keep full recovery more than a year away. Supplies of vegetable oil will most likely continue to fall short of demand.

Barring a disaster, sugar production should suffice to meet domestic requirements in the coming year, possibly allowing for a renewal of sugar exports. Major improvement is also expected for food potato, vegetable and fruit supplies.

The likelihood of continued rationing in Poland depends not only on available supplies, but also on future price policy. At present, prospects remain good for continued rationing of meat and sugar.

16/ Maly Rocznik Statystyczny 1981, GUS, Warsaw 1981, p. 151.

A Summary of Recent Agricultural Reform

A broad range of policy reforms in the agricultural sector has been initiated in Poland over the course of the last nine months. This reform movement was spurred by two things. Firstly, the rise of the Solidarity industrial union, which resulted in a shift in Party and Government leadership and emboldened private farmers to demand similar representation for themselves. Secondly, the poor performance of Polish agriculture over the last six years, reaching critical proportions in 1980/81 as shown above.

The reform movement itself has drawn on a number of sources besides the Government, the unions and private farmers, most notably, the Polish Economic Society. 17/ Though the shape of the reforms themselves have gradually been assuming more definite form, two events in the last nine months stand out in the formulation of the new agricultural policy. First was the agreement reached with farmers following a sit-in strike in the southeastern city of Rzeszow on February 19, which covered most areas of interest to private farmers with the notable exception of independent unions. The second was the agreement reached in Bydgoszcz on March 31, again following a long sit-in by private farmers, which finally set in motion the process of legalization of the farmers' private union--Solidarity of Private Farmers (Rural Solidarity).

A list of major reforms agreed to at Rzeszow includes the following:

1. Guaranteeing the right of ownership and inheritance to private farmers. 18/
2. Giving private farmers priority in purchasing land from the State Land Fund.
3. Equalizing terms of access to credit for all sectors of agriculture.

17/ "PTE O Reformie: Propozycje Zasadniczych Rozwiazan Reformy Gospodarczej w Polsce" in Zycie Gospodarcze, No. 46, November 16, 1980, special pullout, pp. 1-16.

18/ Three-fourths of Poland's agricultural land is worked by private farmers.

4. Increasing supplies of machinery and spare parts for private farmers, entailing a shift in production from large to small machinery.
5. Readjusting prices of machinery and parts on the basis of production costs.
6. Development of small-scale rural industries and services for agriculture.
7. Insurance of greater profitability for farmers.

All these reforms were aimed at facilitating private farming and in most cases also at eliminating long-standing biases in favor of the socialized sector.

Major reforms introduced elsewhere by the Government include:

8. Elimination of direct operational subsidies to state farms (\$1.6 billion in 1980).
9. Shifting of fertilizer supplies from the socialized to the private sector.
10. Recognition of the union of private farmers Rural Solidarity.
11. Increases in the share of total investment for agriculture and the food industry.

Taken as a whole, these reforms represent a major shift in Polish agricultural policy in favor of more efficient and higher production, as well as more favorable operating conditions for private farmers. The previous aim of the gradual socialization of agriculture through attrition of land in the private sector has been abandoned. Under the emerging policy framework, private farmers, linked to the state planning system through contracts and cooperative agreements, are to be given equal treatment in comparison with the state sector in supplying the nation with food.

This formulation may prove to be optimistic for a number of reasons. Though the Government has abandoned the policy of expansion of area of the state farm sector, it remains committed to the success of this sector. Recently it has

been estimated that only one-fourth of the state farms would show a profit without the aid of operational subsidies. 19/ The massive procurement price increases announced April 1, in conjunction with reform number seven above, were aimed not simply at sharpening incentive in the private sector, but also at providing a cushion for the state farms in lieu of the elimination of their operational subsidies. Given the weakened Polish economy at present, and declining production of such things as fertilizer, pesticides and coal, a constraint on the enactment of reforms aimed at improving supplies to private farmers may well be an unwillingness to curtail supplies of these items to state farms to the extent necessary.

Furthermore, successful implementation of many of these items will depend on the full cooperation of local government officials. These people have been trained in the period characterized by general antagonism toward private farmers and could well have difficulty in adapting to the new attitude toward that sector.

Given the magnitude of the problems inherited from last year's poor harvest, and years of mismanagement of the agricultural sector, the full effects of the reforms are not expected to begin before next year and depending on the recovery of industries supplying agriculture with inputs, may be even more delayed.

19/ "Uprawnienia Terenowych Wladz i Wieksza Samodzielność PGR" in Trybuna Ludu, November 27, 1980, p. 6.

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